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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,235	09/24/2003	David C. Benninger	0309-0001	2064

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REED SMITH LLP
1301 K STREET, N.W.
SUITE 1100 EAST TOWER
WASHINGTON, DC 20005

EXAMINER

SCHNEIDER, JOSHUA D

ART UNIT PAPER NUMBER

2182

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/668,235	Applicant(s) BENNINGER, DAVID C.	
	Examiner Joshua D. Schneider	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 22-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. With regards to claims 22, 26, and 30, it is unclear what the scope of the term legacy device is because this term has never used in the specification before its inclusion in the present claims.
5. Dependant claims 23-25, 27-29, and 31-35, are rejected for incorporating the same rejected subject matter as the claim upon which they depend.
6. With further regards to claims 22-25 and 30-35, it is unclear how the legacy controller and the legacy devices can be connected and at the same time have a device disposed between them. In this case, it would seem that the legacy controller and the legacy devices are coupled by the signal conditioning circuits and not actually connected as claimed.
7. All further objections and rejections are made in view of the specification as best understood in light of the previous objections and rejections.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 22-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Labview by National Instruments in further view of U.S. Patent 6,392,557 to Krueter and U.S. Patent 5,947,748 to Licht et al.

10. With regards to claims 22, 26, and 30, Labview teaches at least one legacy device that generates discrete output signals (discrete digital inputs from any type of source, pages 3-1 through 3-10); at least one legacy controller operatively connected to receive the discrete output signals therefrom and to output control signals to the at least one legacy device (Labview program, pages 2-1 through 2-16); an integrated signal conditioning circuit operatively connected between the at least one legacy device and the at least one legacy controller so as to condition at least one of the output signals and control signals being communicated therebetween (Labview functions, pages 2-1 through 2-16); and a master controller operatively connected to control operation of the integrated signal conditioning circuit so as to control the conditioning of at least one of the output signals and control signals being communicated therethrough, and to control operation of the at least one legacy controller (host computer running Labview program). Labview does not explicitly teach a hardware circuit for signal conditioning, but rather the software equivalent. It is notoriously well known in the art that hardware and software are functionally equivalent and interchangeable as a matter of design. Further, Krueter and Licht

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teach hardware implementations of the signal conditioning I/o boards. It would have been obvious to one of ordinary skill in the art at the time of invention to use the hardware of Krueter and Licht with the distributed system control of Labview in order to increase system speed and lower processing overhead.

11. With regards to claims 23, 27, and 31, Labview teaches at least one I/O circuit operatively connected between the at least one legacy device and the at least one legacy controller so as to process the output signals and control signals communicated therebetween (discrete digital inputs from any type of source, pages 3-1 through 3-10).

12. With regards to claims 24, 28, and 32, Labview teaches the integrated signal conditioning circuit is formed to, in response to the master controller, at least one of monitor or interrupt the output signals from the at least one legacy device to the at least one legacy controller (Labview monitoring and alarm functions, pages 2-1 through 2-16); and pass-through or override the control signals from the at least one legacy controller to the at least one legacy device (Labview control output functions with pass through to output functions, pages 3-1 through 3-10).

13. With regards to claims 25, 29, and 33, Labview teaches a plurality of legacy devices each generating discrete output signals (discrete digital inputs from any type of source, pages 3-1 through 3-10); a plurality of legacy controllers each operatively connected to receive the discrete output signals from and to output control signals to a corresponding one of the plurality of legacy devices (Labview program VI's, pages 2-1 through 2-16); and a plurality of an integrated signal conditioning circuits operatively connected between corresponding ones of the plurality of legacy devices and legacy controllers so as to condition at least one of the output signals and control signals being communicated therebetween (Labview functions, pages 2-1 through 2-16).

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14. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Labview by National Instruments, U.S. Patent 6,392,557 to Krueter, and U.S. Patent 5,947,748 to Licht et al., in further view of U.S. Patent 6,513,068 to Jones et al.

15. With regards to claim 34 and 35, Labview, Krueter, and Licht do not specifically teach being applicable to mail sortation systems. However, Jones teaches that Labview is a well known and powerful tool used in a wide variety of industrial and research applications including industrial control and automation (column 6, lines 45-54). It would have been obvious to one of ordinary skill in the art at the time of invention to use the Labview program to automate an industrial mail sortation system in order to customized signal conditioning and control functions without increasing cost dramatically by using commercially available software and hardware.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Schneider whose telephone number is (571) 272-4158. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDS


KIM HUYNH
SUPERVISORY PATENT EXAMINER
4/17/06